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EXAMINER	
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3768	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/813,109	CHO ET AL.	
	Examiner	Art Unit	
	ETSUB D. BERHANU	3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-4,6,7,10,11 and 14-18* is/are allowed.

6)☒ Claim(s) *8,9,12 and 13* is/are rejected.

7)☒ Claim(s) *5* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :3/31/04 5/5/04 7/6/04 12/16/04 3/14/05 4/13/05 8/11/05.

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities: It appears that the phrase "the concentration" in line 7 of claim 5 should read - - the temperature - -. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8, 9, 12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 recites the limitation "said first calculation equation" in line 20. There is insufficient antecedent basis for this limitation in the claim. Claim 9 recites the limitation "said calculation equation selecting means" in line 7. There is insufficient antecedent basis for this limitation in the claim. Claim 12 recites the limitation "said storage portion" in lines 26-27. There is insufficient antecedent basis for this limitation in the claim.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 12 of U.S. Patent No. 7,120,478. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the US Patent. Therefore, any apparatus meeting the requirements set forth in claim 12 of the US Patent would also meet the limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

6. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 12 of U.S. Patent No. 7,215,983. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the US Patent. Therefore, any apparatus meeting the requirements set forth in claim 12 of the US Patent would also meet the limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

7. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 5 of U.S. Patent No. 7,251,514. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the US Patent. Therefore, any apparatus meeting the requirements set forth in claim 5 of the US Patent would also meet the

limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

8. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 11 of U.S. Patent No. 7,251,515. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the US Patent. Therefore, any apparatus meeting the requirements set forth in claim 11 of the US Patent would also meet the limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

9. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of U.S. Patent No. 7,251,517. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the US Patent. Therefore, any apparatus meeting the requirements set forth in claim 13 of the US Patent would also meet the limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

10. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 14 of U.S. Patent No. 7,254,426. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the US Patent. Therefore, any apparatus meeting the requirements set forth in claim 14 of the US Patent would also meet the limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the

US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

11. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 21 of U.S. Patent No. 7,254,428. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the US Patent. Therefore, any apparatus meeting the requirements set forth in claim 21 of the US Patent would also meet the limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

12. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 14 of U.S. Patent No. 7,254,430. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claim of the US Patent discloses all of the elements of the claim of the current invention except for the apparatus being a blood sugar level measuring apparatus, as set forth in the claims. However, it is well known in the art to measure blood glucose levels to obtain a measurement of a metabolic characteristic in a human body. It would have been obvious to one of ordinary skill in the art a the time of the invention to implement the apparatus of the US Patent to measure a blood sugar level of a human, since it has generally been held to be within the skill of the art to measure blood sugar levels to obtain a measurement of a metabolic characteristic of a human body. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

13. Claim 8 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 12 of copending Application No. 10/765,986. Although the conflicting claims are not identical, they are not patentably distinct from each other

because structurally, the claim of the current invention is broader in scope than the claim of the copending application. Therefore, any apparatus meeting the requirements set forth in claim 12 of the copending application would also meet the limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. Claim 8 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 9 of copending Application No. 10/811,894. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the copending application. Therefore, any apparatus meeting the requirements set forth in claim 9 of the copending application would also meet the limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

15. Claim 8 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 19 of copending Application No. 10/975,492. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the copending application. Therefore, any apparatus meeting the requirements set forth in claim 19 of the copending application would also meet the limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claim 8 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 7 of copending Application No. 11/031,013. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the copending application. Therefore, any apparatus meeting the requirements set forth in claim 7 of the copending application would also meet the limitations set forth in claim 8 of the current invention. It is noted that while claim 7 of the copending application does not specifically recite a storage portion capable of storing information, it does indicate in lines 32-35 that a processing portion is capable of storing information to be used in the blood sugar level measurement. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

17. Claim 8 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 11 of copending Application No. 11/059,607. Although the conflicting claims are not identical, they are not patentably distinct from each other because structurally, the claim of the current invention is broader in scope than the claim of the copending application. Therefore, any apparatus meeting the requirements set forth in claim 11 of the copending application would also meet the limitations set forth in claim 8 of the current invention. It is noted that the storage portion of the US Patent is capable of acting as the first storage portion and second storage portion of the current invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

18. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art teaches or suggests, either alone or in combination, a method or apparatus wherein either: a blood sugar level is calculated by using a calculation equation selected based on a temperature of a plate in contact with a body surface, a temperature of heat transmitted from the plate to an adjacent first member, a temperature of heat radiating from the body surface and results from detected light from which the plate has been irradiated; a calculation portion calculates a blood sugar level by using a plurality of measurement values obtained from a heat amount measuring portion, an oxygen supply volume measuring portion and an optical measuring portion; a calculation portion calculates a blood sugar level by using outputs from an indirect temperature detector, an ambient temperature detector, a radiant heat detector, a light detector and a first calculation equation based on the temperature measurements and detected light results; a communication interface is capable of relaying information to a control portion wherein the control portion replaces relationships stored in a storage portion with the information from the communication interface; or a processing portion is capable of statistically processing multiple data sets related to a temperature of a body surface, a temperature of a heat conducting member in contact with a body surface, a radiation temperature on the body surface, and values of a plurality of parameters calculated from ambient temperature in order to determine a blood sugar level based on a determined relation expression indicating a relationship between the data sets and the blood sugar level, in combination with the other claimed steps or elements.

19. Claims 1-4, 6, 7, 10, 11 and 14-18 are allowed.

20. Claim 12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

21. Claims 9 and 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

22. Claim 5 would be allowable if rewritten to overcome the objection set forth in this Office action.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant cites several references related to the measurement of analyte concentrations. Oosta et al.'480 (cited by Applicant) teaches the use of temperature measurements to calibrate an optical glucose measurement based upon the skin type of a subject. Cho'414 (cited by Applicant) teaches determining glucose concentrations baed upon temperature analysis and spectral measurements. Iitawaki et al.'314 (cited by Applicant) teaches a measurement portion for obtaining a plurality of measurement values and a calculation portion for calculating a blood sugar level based on the plurality of measured values, wherein one of the values is related to a heat measurement. Cho et al.'996 (cited by Applicant) teaches a measuring portion for measuring blood sugar levels based on heat radiating from the skin of a user and a temperature of the environment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ETSUB D. BERHANU whose telephone number is (571)272-6563. The examiner can normally be reached on Monday - Friday (7:00 - 3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on (571)272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric F Winakur/
Primary Examiner, Art Unit 3768

EDB